

### *Diagnostic et traitement des douleurs communes d'origine rachidienne : une nouvelle approche*

Robert Maigne

Expansion Scientifique Française, 1989

Couverture rigide, 516 pages

Le Dr Robert Maigne jouit d'une réputation non-surfaite dans le milieu de la médecine orthopédique et des thérapies manuelles. Dans la nouvelle édition de son livre, il nous propose une approche diagnostique et thérapeutique des douleurs vertébrales basée sur des années d'expérience et d'observation clinique. Son ouvrage s'adresse donc à tous les professionnels de la santé pratiquant les manipulations.

Dans le but de nous faire découvrir ses concepts diagnostiques et thérapeutiques il divise son volume en six parties. Il couvre l'anatomie et la biomécanique rachidienne, la douleur d'origine vertébrale, l'examen et les traitements du rachis et finalement il discute les principaux aspects cliniques des douleurs d'origine vertébrale.

Les deux premières parties portant sur l'anatomie et la biomécanique sont traitées de façon superficielle et sont basées sur de la littérature dépassée. Il faut par contre comprendre qu'elles servent d'introduction aux chapitres d'ordre plus clinique.

Le but de la troisième partie est d'essayer de nous expliquer ce qui peut être à l'origine de la douleur vertébrale, de pouvoir détecter les segments responsables et de reconnaître la distribution de leur douleur référée. Les concepts de dérangements intervertébraux mineurs (DIM) et du syndrome cellulo-périoste-myalgique (CPM) vertébral segmentaire qui sont à la base des principes thérapeutiques du Dr Maigne sont introduits dans cette section.

La quatrième partie couvrant l'évaluation du rachis fait reviser au clinicien les principes généraux de l'examen global et segmentaire du rachis. Les tests visant à détecter les dérangements intervertébraux mineurs et les symptômes associés au CPM vertébral segmentaire sont aussi présentés.

Les divers traitements des lésions vertébrales bénignes de même que leurs indications et contre-indications sont abordées dans la cinquième partie. Il est entre autres question de manipulation, de traction, de massage, d'infiltrations, de lombostats et de modalités antalgiques.

Ce qui distingue le Dr Maigne des autres cliniciens pratiquant les thérapies manuelles sont ses principes de DIM et de CPM vertébral segmentaire. Dans la dernière section de son livre il les implique directement soit comme initiateur, soit comme facilitateur de douleur articulaire non-vertébrale ou pseudo-viscérale.

L'ouvrage du Dr Maigne est en soi une représentation de son expérience clinique. Il est bien divisé et adéquatement illustré. L'une des faiblesses du livre est qu'il est basé sur une littérature dépassée et que les concepts présentés sont presque totalement empiriques, n'ayant pas été étudiés scientifiquement. Il constitue toutefois une référence valable pour le clinicien tant pour ses théories que pour la diversité de ses moyens thérapeutiques. Il expose aussi le clinicien nord-américain à la vision européenne des thérapies manuelles.

Pierre Côté

Clinical Resident III

Canadian Memorial Chiropractic College

### *Basic Neurology, 2nd edition*

Dr. John Gilroy

Pergamon Press, Inc., Elmsford, New York

ISBN 0-08-040297-6, 423 pp, RRP \$29.95 (US)

For any primary health care practitioner, the ability to recognize and interpret subtle neurological signs and symptoms is essential to the formulation of an appropriate diagnosis. Only then, does treatment and prognosis become valid.

In this text, Basic Neurology, Dr. Gilroy directs his material to the student or practitioner who would like to develop or refresh his ability to deal with patients presenting with neurological conditions. By the end of the book, the reader should possess the basic clinical knowledge necessary to recognize such conditions and to judge whether or not to proceed to more exhaustive diagnostic tests.

In the 20 chapters, the author skims through various neurological conditions such as headache, coma, epilepsy, movement disorders, cerebrovascular diseases, infections, tumors and trauma. Each condition is discussed according to its definition, etiology, pathology, clinical presentation, diagnostic procedures, differential diagnosis, treatment and prognosis. In the last two chapters, the various peripheral neuropathies and muscular disorders are discussed and are particularly relevant to chiropractors.

Two components of this book constitute strengths in the opinion of this reviewer. First, the juxtaposition and discussion of conditions with similar clinical presentations, emphasize the clinical importance of subtle neurological signs and symptoms. Secondly, the inclusion of the various diagnostic procedures, such as the plain x-ray, computerized tomography, magnetic resonance imaging, myelography, angiography, lumbar puncture, electroencephalography and electromyography, familiarizes the reader with their diagnostic utility.

However, the treatment of conditions such as occipital neuralgia and thoracic outlet syndrome would benefit from a broader approach to their conservative treatment. Furthermore, the listing of drugs and their dosage for some of the conditions is, from the perspective of a chiropractor, of theoretical interest.

The language used in this book is clear, even if very specialized. The text is clarified by the use of tables that can be used later for rapid recall. It is also well illustrated mostly with magnetic resonance images. These result from the most advanced imaging technology available to the medical profession. Each chapter is well documented with references rarely dated before 1986.

By participating in a multidisciplinary team, chiropractors have indirect access to most diagnostic procedures mentioned in this book. For that reason, I would not hesitate to recommend this book as a reference for basic clinical neurology to every chiropractor who collaborates with a medical doctor and/or who desires to increase his clinical skill with patients presenting with neurological signs and symptoms.

Stéphane Lefebvre, DC

Clinical Resident I

Canadian Memorial Chiropractic College



***The Biomechanics of the Foot and Ankle*  
(Contemporary Perspectives in Rehabilitation; v. 3)  
Robert A Donatelli  
F.A. Davis Company, Philadelphia (1990)  
283 pp, RRP \$31.50 (US)**

As chiropractors, we acknowledge the influence of abnormalities of the lower limb upon pelvic and spinal biomechanics. In so doing, we should be able to define what are the normal biomechanics of the lower limb and how they may be related to clinical practice. In *The Biomechanics of the Foot and Ankle*, edited by Donatelli, the authors try to bridge the gap between podiatric science and physical therapy management. Their objective was to combine the biomechanical analysis of the foot and ankle, otherwise referred as the 'lower kinetic chain', with a rationale for therapeutic intervention. This was accomplished by utilizing a problem-solving case format, emphasizing clinical decision making.

This text is divided into three sections made up of a number of chapters that are each supported with the appropriate references. The first section provides the fundamental knowledge of the anatomy and biomechanics of the foot and ankle. This knowledge is essential to the understanding of the remainder of the text, in particular to the developing of a sound treatment plan to correct anomalies affecting the lower limb. It reviews the normal developmental anatomy of the lower limb and continues with a thorough explanation of the complex functional anatomy of the foot and ankle. In addition, an in-depth discussion of the effects and repercussions of abnormal pronation and supination of the subtalar joint on the lower kinetic chain is included. This section concludes with a review of the developmental characteristics of gait.

The second section is devoted to the biomechanical evaluation of the foot and ankle. It gives a simple but detailed overview of the clinical assessment of the foot and ankle that is needed to establish a proper course of treatment. It emphasizes the analysis of the different compensatory mechanisms, such as pronation and supination, and their causal factors. It also describes a method of appraising gait. Finally, it presents an overview of the different radiographic studies used in the podiatric clinic to complete the evaluation of the foot and ankle.

The last section deals with the correction of biomechanical faults using various treatment approaches. Among these, are the basic principles of orthotic prescription for the adult and the pediatric foot. Several cases are presented to illustrate the conservative management of common clinical problems such as lateral ligament sprain, calcaneal pain and hallux abductovalgus. This section ends with a brief description of the different surgical interventions commonly used to correct congenital or developmental anomalies of the lower limb, such as a short leg or a pronated foot.

Unfortunately, the clarity of the above sections is clouded by the complexity of the material. The poor quality of the illustrations in the first section enhances its complexity. However, the subsequent two sections reiterate this material in a more practical way which improves its comprehension. The numerous problem-solving cases used by the authors allows the reader the opportunity to integrate the material. These cases illustrate to the reader how they may be able to apply the principles outlined to their clinical practice.

In the opinion of this reviewer, this book is a very good reference for

the chiropractic practitioner and the student wanting to become proficient in foot and ankle biomechanics. Furthermore, the material presented in this text is directly applicable to clinical practice, especially to the chiropractor interested in prescribing orthotics.

François Hains, DC

Clinical Resident I

Canadian Memorial Chiropractic College

***Case Studies in Chiropractic Radiology*  
Sharon A. Jaeger and Deborah M. Pate (eds)  
Aspen Publishers, Inc., Rockville, Maryland  
ISBN 0-8342-0148-8, 242 pp, 1990**

The uniqueness of this text lies in the use of a 'case based' presentation of the material, an approach considered by many to be optimal for learning. The editors chose a range of conditions that are commonly seen in chiropractic offices, with an emphasis on the application of radiology to these conditions, thus the title.

The use of several contributing authors can lead to continuity problems within a text. Thankfully, this is not the case here. The book is divided into 14 sections, each one covering an area of the body, with one section devoted to scoliosis. Each section contains from one to eight chapters or 'cases', dealing with different conditions affecting the area. For example, the section on lumbosacral spine includes two cases: case 14: facet syndrome and case 18: failed back surgical syndrome. Within a given case, from one to three actual patients may be discussed. Each case follows the same format of a brief history of the patient's complaint, pertinent physical examination findings, a discussion/synopsis of the condition, radiographic findings and treatment, followed by references and a list of supplemental readings. The treatment portion outlines the specific therapy of the presented patient as well as more general management and goals of therapy. In both the discussion and treatment areas, points on which opinions may differ are referenced.

Included with each case, are reproductions of either the patient's or other illustrative plain films, with occasional hand drawn diagrams. As well, generous use is made of alternate imaging techniques such as computerized tomography, magnetic resonance imaging and thermography. The pertinent findings best demonstrated by these different imaging techniques and their diagnostic usefulness, are discussed relative to the individual case presented. While the images generally reproduce well, a better use of arrows on them to delineate areas of concern would have been beneficial. Also, the results of the thermograms would have been more illustrative in colour rather than the black and white used. Still, by providing an appreciation of what the different techniques can help visualize and when they're appropriate, the reader gains a better understanding of alternatives to plain film. This is especially important when considering requesting additional imaging or in comprehending why these other methods may have been used.

There were a few unfortunate errors made in labelling of some diagrams and in references to specific radiographs; such as mixing up of anteroposterior and lateral films or, the reference to a torus fracture as a greenstick fracture in case 39. These incidents cast a shadow on an



otherwise concise, easily readable text, which effectively demonstrates the application of radiology to a clinical picture.

The case study approach, including a variety of methods of imaging the affected area, combined with appropriate treatment and selective but recent references results in an unusual text which manages to integrate the application of radiographic imaging into the total clinical picture. Although the editors did not indicate their aims or intended audience, I feel they have succeeded in producing a text which would benefit either the student or practitioner of chiropractic as an excellent reference for common disorders, especially in the area of applied radiology.

Laurie King, DC

Clinical Resident I

Canadian Memorial Chiropractic College

### ***Sports Medicine: The School-Age Athlete***

**Bruce Reider, MD (ed.)**

**Toronto, WB Saunders Co. 1991, 701 pages**

In *Sports Medicine: The School-Age Athlete*, editor Bruce Reider sets out to provide an informative and up-to-date synopsis of the diagnosis, treatment and management of injured athletes. The text is primarily aimed at the orthopaedic surgeon with the intention of focusing attention to the overall management of the athlete himself.

Generally, the appearance of this hard cover book is impressive. The typeface is legible and clear and large enough to prevent eyestrain after hours of reading. Most of the illustrations are clear and well placed, however some of the x-ray plates are of poor quality. Colourization of section headings, figures or areas of importance could make the text more visually appealing, although add to its cost. Algorithms included in the chapters on Hand and Wrist and Gymnastics injuries for example, provide ease of information gathering for the reader.

The book is directed at three distinct populations. The orthopaedic surgeon, the team physician, and the team trainer or therapist. To achieve this end, Dr. Reider divides the book into three sections: Part I: Training and Rehabilitation Techniques; Part II: Common Sports Injuries, and Part III: Sports-Specific Sports Medicine. As well, Dr. Reider recruits the help of an exhaustive list of contributors in each of these three sections.

Contributing authors provided current references and accurate, up-to-date information, often borrowing prominent professional's regimes for on and off season conditioning (e.g. as seen in the Baseball chapter). The index allowed for ease of accessibility of information, with good cross-referencing of common sports injury names to clinically diagnostic ones.

Part II "Common Sports Injuries", caters to the needs of the orthopaedic surgeon. Most attention is paid to the epidemiology and surgical management of a specific injury. Parts I and III are geared to the team physician and team trainer. They outline sports-specific injuries, rehabilitative techniques, training and conditioning regimes, and psychosocial aspects of sports medicine. The mechanisms of injury were very clearly delineated with a brief outline of basic anatomy, biomechanics,

sports-specific conditioning and training techniques, common injury management and presentation.

In conclusion, Dr. Reider accomplishes the difficult goal of presenting a text to readers of differing orientation. The text is well organized, readable and would be an asset to the team physician or team trainer to whom it is geared. The general practitioner may find this text not quite as suitable to his or her needs.

Deborah Kopansky-Giles, BPHE, DC

Toronto, Ontario

### ***Dynamic Chiropractic Today***

**Michael Copland-Griffiths, DC**

**Wellingborough, Northamptonshire, U.K.**

**Thorsons Publishing Group, 1991,**

**Hard cover, 228 pages, £20**

The author of *Dynamic Chiropractic Today* has attempted the noble task of producing the "... complete and authoritative guide to this major therapy". His commendable effort is a neatly presented book of over 280 pages.

This book comprises twelve chapters with contents ranging from the author's description of the nature of chiropractic, case histories, discussion of preventive health-care/home-care exercises, the history of manipulation and the emergence of the chiropractic profession, chiropractic principles and theory, the education of chiropractors, an overview of chiropractic worldwide and chiropractic's place in the health care system. The book concludes with a comprehensive Glossary, a Further Reading List, a list of Useful Addresses and an Index.

Large, easy to comprehend diagrams accompanied by written descriptions are included in the book. These are primarily found in the chapters related to preventive health care and specific exercises. Diagrams of the spine, vertebrae, pelvis and related nerves are found elsewhere. The book includes photographs of both DD and BJ Palmer, as well as the author demonstrating the various chiropractic techniques described in the text.

Dr. Copland-Griffiths has certainly extensively researched the material for this book. Chapters 10 and 11 relate to 'Educating the Chiropractor' and 'Building the Profession', respectively. These two chapters reviewed chiropractic education around the world from the Anglo-European College of Chiropractic in Bournemouth, South Africa's chiropractic course at the Technikon in Natal to the Australian Council on Tertiary Awards accredited Phillip Institute of Technology chiropractic programme. Further, they included discussion regarding government commissions and the historical development of chiropractic in various countries. The latter chapter encompassing such details as an obscure yet significant court case dealing with the right of chiropractors to perform radiography in Tasmania, Australia in 1960. This reviewer found these two chapters the most interesting.

Writing a book described as both complete and authoritative is fraught with the potential to invite criticism. Very rarely, it would seem, do two people [let alone chiropractors] agree as to what constitutes completeness and further, by what yardstick is a book judged to be



authoritative. The 'Preface' suggests that the intended readership for *Dynamic Chiropractic Today* ranges from the chiropractic student or researcher to the potential patient. While there may well be many potential patients, interested 'lay' readers or researchers to whom the book may appeal or at least, be of interest, it may be too long for the average patient. While there is an appendix entitled 'Further Reading', one significant weakness of the book is the lack of specific references. This may prove annoying or at least frustrating to both researchers and students. Many practitioners however, may find the exercises illustrated and described to be quite useful for their patients.

Chiropractors with a 'scientific bent' may find the chapter entitled 'Chiropractic Case Histories' inappropriate. However, to the potential patient this chapter may be of great interest. Likewise, the unsubstantiated claims for the effects of chiropractic treatment in patients with dysmenorrhoea, scoliosis and 'lethargy'/hypothyroidism may cause concern in some chiropractors. The author's treatment of these controversial issues is commendable. He discusses the observed phenomena and speculates a cause and effect relationship. For example, in the reported case of Beverly the 14-year-old girl with scoliosis, the chiropractor concerned apparently discussed the natural history of scoliosis [that is spontaneous remission] with both the teenager and her mother.

A number of assertions are made in the early part of the book regarding the aetiology of 'chiropractic lesions', for example birth trauma and the relationship to the development of health problems in later life. While such ideas comprise a large part of chiropractic 'philosophy', it may have been more prudent to suggest that such relationships are based upon empiricism and as such, are speculative and beg scientific investigation.

The title of the book may cause confusion since it is very close to that of *Dynamic Chiropractic* the chiropractic magazine/newsletter published by the Motion Palpation Institute and emanating from California twice per month. Indeed, the founder and first editor of 'DC' was mentioned in the 'Acknowledgements'. The author's choice of title may be a reflection of his perceived need for the profession to encompass a more dynamic paradigm for chiropractic by de-emphasising the old 'bone-out-of-place' concepts of the early chiropractors. One etymological error found in the book was the incorrect use of the term 'ileum' to describe the bone named the 'ilium' according to *Nomina Anatomica*.

Overall the book is a commendable effort to achieve an overview of chiropractic today. The description of *Dynamic Chiropractic Today* as "The complete and authoritative guide to this major therapy" may be a little pretentious given the short-comings noted. The description "An Overview and Guide" may have been somewhat more realistic. The book is certainly an enjoyable, readable and informative overview of chiropractic suitable for a 'keen' patient or potential patient or with the reservations noted, for the researcher or chiropractic student.

Colin Crawford, B.App.Sc. - Chiropractic [Phillip]  
Resident IV, CMCC

# **Sports Medicine - 2nd edition**

**Richard H. Strauss, MD (editor)**

**WB Saunders Company, Toronto, Canada (1991)**

**ISBN 0-7216-3734-5**

In recent years, a rather large body of information has accumulated with respect to athletic concerns. The knowledge gained has emerged as a singular discipline, now recognized generically as SPORTS MEDICINE. Within this generally accepted domain, investigators both clinical and experimental, continue to generate a variety of sport-related, educational materials at a seemingly explosive rate. In this recent contribution, the current Editor-in-Chief of the prestigious journal, "The Physician and Sportsmedicine", has assembled an impressive staff of 44 contributors (including himself), each of whom has written and/or collaborated in the development of 35 informative chapters.

The handsomely-bound 2nd edition, totalling 582 pages (20 pages of index), is easily readable, owing to the clarity of both style and size of print utilized. Throughout, the text is replete with numerous illustrations consisting of anatomical drawings, line diagrams, tables, charts, radiographs, black and white photographs and 26 colour plates, all of which are clearly reproduced and succinctly captioned. Informational content is neatly divided into five major sections, each containing a series of topics constituting individual chapters. Chapters are presented in a comprehensive and well-supported fashion, as evidenced by numerous and generally current citations.

A broad range of topics includes examination of the physiological influence of exercise, most notably on the cardiovascular system (Section I), but also on a variety of other organ systems (Section II). Issues affecting athletic performance are discussed as selected topics (Section III), including the physiological and emotional status of the athlete, nutritional concerns, the influence of travel and injuries prevention and management, to name a few. Section IV is relegated to discussion involving environmental concerns including heat and cold-induced traumas and problems associated with changes in altitude and under-water activities.

Discussions concerning special participant contingents, including pediatric, pregnant, geriatric and disabled athletes, and other not-so-commonly considered topics, are covered under the concluding Section V of the text. Relevant case studies and clinical examples, pertinent to specific chapter themes, permeate the text. The well-appointed index is of invaluable assistance.

However, a negative comment regarding the text may be as follows. As mentioned earlier, "Sports Medicine", has become an all-inclusive generic term referring to athletes, their unique physiology and specific pattern of injuries and associated management. In his Preface, Dr. Strauss is quick to indicate that, "the book is unusual in that it is devoted to nontraumatic medical problems in sports and exercise". Consequently, the title alone may be somewhat misleading and perhaps a trifle unfair to the unwary consumer/purchaser. A more appropriate title may have been: *Nontraumatic Sports Medicine*. However, there is no question that such a title would have very little appeal for the practitioner who is primarily concerned with treating maladies of the locomotor system.

Overall, the text is an excellent source of reference for the academi-



cian involved in either the educational or investigative setting. As well, the sports practitioner, who may be regularly called upon by the more physically active or athletically competitive patient, will likely find this a useful aide in formulating appropriate answers, offering specific advice and devising exercise prescriptions. The text is well-organized and is impeccably formatted. The editor has achieved his aim in developing a reference text which will undoubtedly appeal to a wide variety of both medical and non-medical personnel.

John P Crawford, PhD, DC, FCCSS(c)

Orangeville, Ontario

**Occupational Low Back Pain:  
Assessment, Treatment and Prevention**

**Malcom H Pope et al.:**

**Mosby-Year Book, 11830 Westline Industrial Drive,  
St. Louis, MO 63146. ISBN 0-8016-6252-4. 325 pages.  
RRP \$85.75 (CAN)**

Occupational low back pain is extremely costly to our society. In fact, back injuries average 33% of the cost of all compensable work injuries. For the year 1988 alone, the total cost for low back pain to American industry has been estimated to lie between 26.8 and 56 billion dollars. Approximately 90% of the cost is consumed by 25% of the cases that have not responded to treatment. When dealing with occupational low back pain, the concerned chiropractor must base his approach on a thorough knowledge of its epidemiology, biomechanics, ergonomics, symptomatology, treatment and rehabilitation.

This book is addressed to physicians, scientists, management, workers or anyone concerned about the problem of occupational low back pain. The text is divided into five distinct sections. In the first section, after a review of the anatomy and biomechanics of the lumbar spine, the epidemiology, symptomatology, classification and cost of low back pain are discussed.

In the second section, found in worker and workplace factors suspected of being related to the occurrence of low back pain, are discussed. To stimulate the reader's objectivity, the authors present various studies either supporting or denying the attempt to relate the discussed factor to the incidence of low back pain. Among the workplace factors discussed, are the requirements for lifting, pushing and pulling, posture and cyclic vibrational loading. Among the worker related factors are the gender, anthropometry, spinal mobility, muscle strength, physical fitness, congenital bone anomalies and mental health. This section forms a sound foundation from which the reader can formulate an opinion regarding the factors to be evaluated.

The third section describes what is looked for during an evaluation, what are the diagnostic tools and their utility, what are the forms of treatment available and what can aid the rehabilitation of low back pain cases. Only a small paragraph is devoted to vertebral manipulation. Unfortunately, the literature review on this subject is deficient. In consequence, the definition, hypotheses and benefits of manipulation are superficially handled.

The fourth section addresses the strategies available to the employer

who wishes to decrease the occurrence of low back pain. These include the evaluation and design of the workplace, as well as the selection and education of the workers. This section is the practical application of the information found in the second section. It should satisfy the reader who is collaborating with industry.

The fifth section traces the history of worker's compensation law in the United States. It also evaluates the past and present tendencies in the health care system and ends with the authors' prediction about the future.

The language used in the text is clear and precise. Technical terms are discussed in a glossary at the beginning of the book. In general, references to current literature are abundant. Numerous tables and figures complement or summarize the text and can serve for later rapid reference.

In this reviewer's opinion, this book has several notable qualities. First, it tries to reflect the diversity of opinion and existing controversies by incorporating a variety of points of view. Second, through its broad approach to the problem of occupational low back pain, the reader can recognize and appreciate the important contribution made from various fields of expertise. This contributes to stronger interprofessional relationships, faster transmission of new knowledge and avoidance of unnecessary repetition of research. However, the superficial discussion on manipulation raises the question of the thoroughness in the assessment of the remaining treatment approaches. This should be reworked in the next edition.

In summary, this book contains a significant amount of information regarding the various aspects of occupational low back pain. Therefore, it may promote excellent background reading for the chiropractor participating in occupationally related areas. For these reasons, this book should find its place in the chiropractor's library.

Stephane Lefebvre, DC

Clinical Resident, CMCC

**Clinical Sports Medicine**

**Editors: William A Grana, MD and Alexander Kalenak, MD  
WB Saunders Co., Toronto, 1991, 507 pages**

Clinical Sports Medicine is a well organized educational textbook covering most topics in sports medicine of interest to the health care practitioner or sports scientist. The text is divided into five parts: sports science, general approach and common medical disorders, rehabilitation, orthotics and protective devices, and musculoskeletal disorders in sports.

There are 36 chapters presented by different authors. The material is current, topical and for the most part practical. The appendix to certain chapters provides samples of menus, medical history forms, permission and release statements, physical examinations, pre-participation screening and exercise programs. Each chapter concludes with a summary of keywords and concepts which is quite helpful for review. There are ample current references at the end of each chapter for those interested in pursuing the topics in more detail. In most chapters the illustrations are sufficient and clear and are helpful in conveying the



authors concepts. The radiographic and surgical reproductions are of good quality. The index is thorough and very helpful.

On the plus side, this book is well organized, informative and practical, allowing it to be readily utilized by clinicians. The chapter on the biomechanical and physiological basis of rehabilitation should be read by everyone concerned in the treatment of sports injuries.

On the negative side, I found the book to be lacking in certain areas such as: the biomechanical basis for injuries in certain sports, especially overuse injuries, the management of heat injuries and the cause and management of spinal injuries. A chapter on the role of the team doctor or how to organize a sports medicine team for special events would also have been appropriate. As a chiropractor, I was very aware of the omission of manual medicine, especially manipulation in the treatment of musculoskeletal disorders.

Tackling the topic of sports medicine in a 500 page book, is a monumental task. Despite the shortcomings, I think that the editors have achieved their goal of "creating a comprehensive book that has value as a reference to clinicians and scientists at all levels of expertise".

John DeFinney, BPHE, DC, FCCSS(C)  
Markham, Ontario

***Neuroanatomy Made Easy and Understandable***

**Michael Liebman, PhD**

**with a contribution by Rina Tadmor, MD**

**Aspen Publishers Inc., Gaithersburg, 1991. Soft cover,  
148 pages, US \$29.00, CDN \$40.05**

All clinicians have, at some time, promised to review certain subjects which were part of their undergraduate education. One attends seminars, conferences and the like, and often purchases copious quantities of books in the hope of one day facing up to this promise, usually made prayerfully, after reading something interesting and/or clinically important, during a cram session the night before an examination. This book certainly substantiates the above notion for this reviewer. Neuroanatomy Made Easy and Understandable is an appealing looking purple coloured, soft covered book with approximately 'US letter' sized pages; most importantly to the reader described above, it is not too thick!

The author states that he has attempted to cut out the fat of extraneous detail and theory, leaving the essentials that form the basis of neuroanatomy, neurophysiology, neuropharmacology, physical diagnosis and neurology sufficient for undergraduate courses, board examinations, review for clinical internship and as a reference for the practitioner. In one of the seven Appendices, the author states that "... most of us neuroanatomists aren't fulltime SOB's". This is certainly reflected in the writing style and general presentation of this book.

The book consists of a "Don't skip this Introduction", twenty-three chapters plus the appendices and an index. The chapters cover the microscopic and macroscopic basis of neuroanatomy, pathways for pain and temperature, pressure and simple touch, proprioception and vibration from trunk and face, as well as voluntary muscle control. The cerebellum, autonomic nervous system, cranial nerves, reticular sys-

tem, hypothalamus, cortex, meninges and the blood supply to the brain occupy separate chapters. The final chapter is an introductory overview of the most common neuropathologies.

The seven appendices include a glossary, an atlas consisting of sixteen plates of sections of the brain, normal cerebrospinal fluid valves and a chart of muscles, their action and nerve supply. A useful atlas of computed tomography [CT] and magnetic resonance images [MRI] is included. The author has also included a sample of thirty-five multiple choice neuroanatomy examination questions and tips on taking a practical laboratory exam.

\* Should one enjoy the pursuit of medical trivia, history or interesting tidbits, then the final Appendix appropriately titled "Did You Know?", "Ten Greatest Discoveries" and "Odds and Ends" should appeal and provide respite to the "neuro"-weary reader.

The text is easy to read with plenty of diagrams some of which, on initial observation, appear rather complicated but are well clarified by and complementary to the text. The information is presented in an easy-to-understand manner and is enhanced by clinical examples and anecdotes which aid both understanding and recall.

There is some debate by neuroanatomists as to the function of the superior oblique muscle with the author suggesting that this muscle turns the eye downward and laterally. Others express the view that superior oblique infact turns the eye downward and rotates it medially. This difference of opinion does not detract from the overall usefulness of the book but may be of concern to neuroanatomists. Apart from the divergent opinion above and two minor "typo's" found by this reviewer, which are thought to be oversights on the part of the proofreader, the book is thought to be anatomically accurate.

The CT and MRI appendices consisting of thirty-five images, certainly do not replace the thorough treatise found in dedicated texts, however, they offer the reader a good overview of the normal anatomy and selected pathologies provided by the latest imaging technologies.

A criticism could be that this book may be too superficial with relatively few references. The author points out, in his introduction, that ease of reading and understanding of more detailed texts and reference books should follow comprehension of the information found in this book.

As a review for the practitioner and the student facing board examinations or waiting an initial more-than-overview of "one of the most difficult subjects to grasp", Neuroanatomy Made Easy and Understandable would be a valuable addition to their libraries. It provides a level of detail; which is more than that found in books attempting to make neuroanatomy ridiculously simple rather than simply easy and understandable.

Colin Crawford, B.App. Sc. - Chiropractic [Phillip, Australia]  
Resident IV, CMCC